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10/829,275

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EXAMINER

WENDELL, MARK R

ART UNIT

PAPER NUMBER

3635

NOTIFICATION DATE

DELIVERY MODE

06/10/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/829,275 | Applicant(s) SUZUKI ET AL. | |
| | Examiner MARK R. WENDELL | Art Unit 3635 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 recites the limitation "an edge of the first ... joining plate" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 12-16, 19 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Wippermann (US 3474578). Regarding claims 1 and 13, Wippermann illustrates in Figures 1-4 a joint structure and a structural member (15), comprising:

- A gusset plate (34 or 39), said gusset plate being formed from a flat plate having first and second opposed faces; and

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- A plurality of splice plates (14) connected to said gusset plate, each of said plurality of splice plates being constructed from section steel (see column 2, line 25 where the applicant states that the invention includes an all-steel roof) having a cross-section perpendicular to a longitudinal axis thereof that is L-shaped, at least one of said plurality of splice plates having a face in direct contact with the first opposed face of said gusset plate and at least another of said plurality of splice plates having a face in direct contact with the second opposed face of said gusset plate.

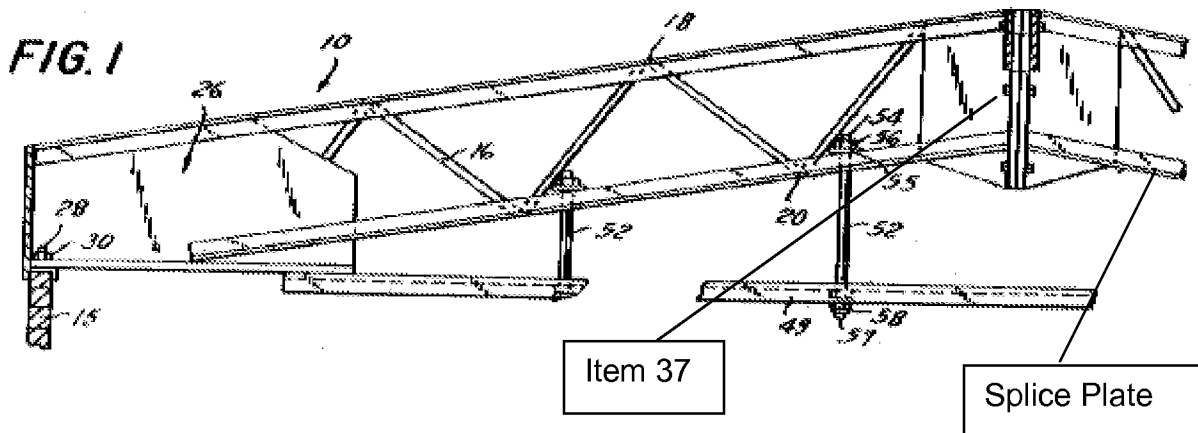
Regarding claims 2 and 14, Wippermann illustrates in Figures 1-4 said gusset plate (39) connectable to a first structural member (15) and said plurality of splice plates (14) is connectable to a second structural member (42) via welding, bolting or other similar fastening means as stated throughout the specification.

Regarding claims 3 and 15, Wippermann illustrates in Figures 1-4 said gusset plate connected to said plurality of splice plates is a first gusset plate, said first gusset plate being connectable to a second gusset plate (37).

Regarding claims 4-5 and 16-17, Wippermann illustrates in Figure 1 said first gusset plate (39) is a vertical gusset plate and said second gusset plate (37) is a horizontal gusset plate, said horizontal gusset plate being connected to at a least one additional

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splice plate (14, see Figure 1 below) constructed from section steel having a non-rectangular cross-section.



Regarding claims 7 and 19, Wippermann illustrates in Figure 2 the gusset plate including a rib (35) connected to at least one of a top edge and a vertical upright edge thereof to increase the buckling strength of the gusset plate.

Regarding claims 12 and 24, Wippermann illustrates in Figures 1-4 said gusset plate including said first and second opposed faces, said first and second opposed faces having no stiffening ribs connected thereto.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 18 and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wippermann (US 3474578). Regarding claims 6 and 18, Wippermann does not distinctly specify the location where the joint structure is formed; however the joint structure assembled by Wippermann exhibits the structural limitations set forth by the claims.

Regarding claim 25, it is described above what structure is disclosed by Wippermann, the act of assembling the structure, including providing the plates and connecting them would have been obvious to one having ordinary skill in the art at the time of invention.

Regarding claim 26, Wippermann states throughout the specification that the method of connecting the plates to one another can include not only welding, but may include bolting or using other fastener means.

Regarding claim 27, Wippermann illustrates in Figures 1-4 the splice plates being connected to structural members 16, 26, 42 and 52.

Regarding claim 28, Wippermann illustrates in Figure 1 the step of connecting the gusset to a structural member of a building (15) via item 28.

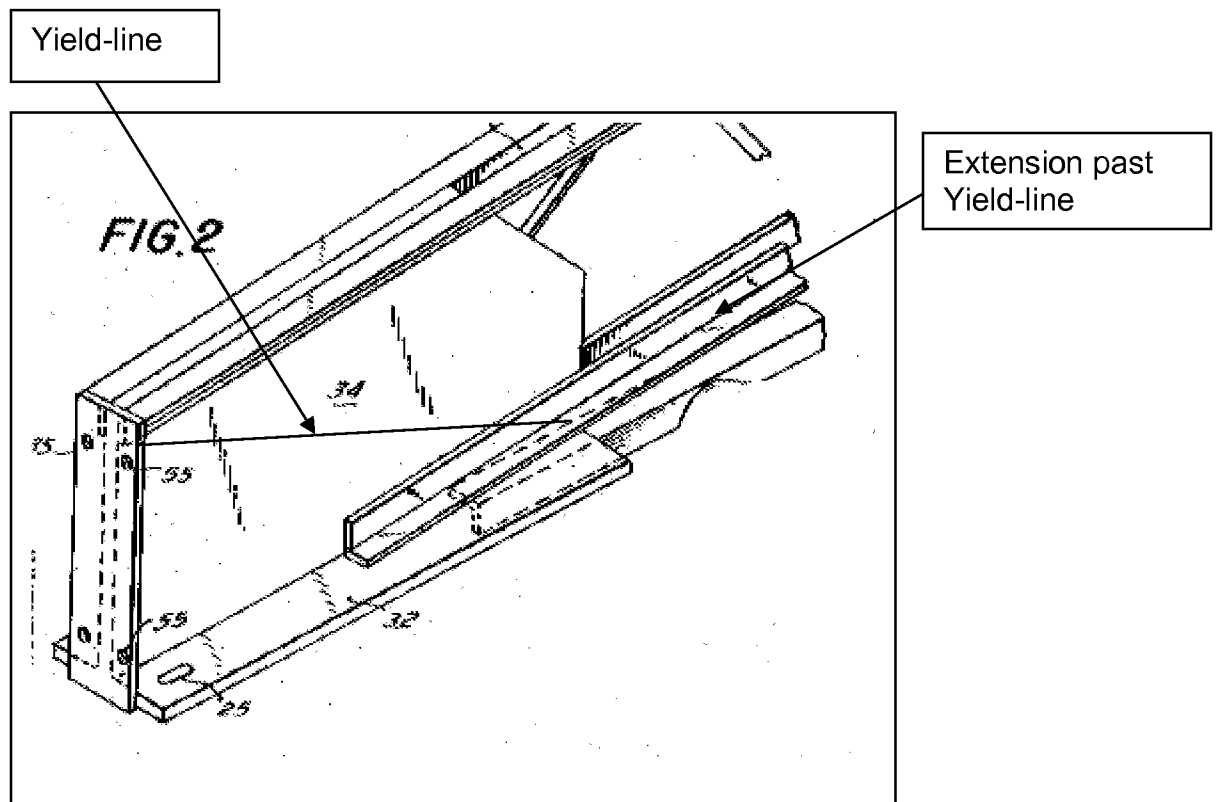
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Regarding claim 29, Wippermann illustrates in Figure 2 the gusset (34) attached to the building (15), the preexisting gusset including a stiffening rib (35) attached thereto, said method further comprising the step of connecting said first end of at least one of said plurality of splice plates (14) to the stiffening rib of the preexisting gusset. The examiner notes that the term "connecting" can include an intermediate structure or structures between the items being connected.

Regarding claim 30, Wippermann illustrates in Figures 1-4 multiple gusset plates connected together via splice plates (14).

Regarding claim 31, Wippermann illustrates in Figure 1 said first gusset plate (39) is a vertical gusset plate and said second gusset plate (37) is a horizontal gusset plate, said horizontal gusset plate being connected to at a least one additional splice plate (14, see Figure 1 below) constructed from section steel having a non-rectangular cross-section.

Regarding claim 32, Wippermann illustrates in Figures 1-4 extending said at least one of said plurality of splice plates (14) toward a corner of the gusset plate beyond a yield line of the gusset plate, said yield line being formed by a diagonal line extending from an edge of the first joining plate to an edge of the second joining plate.



Claims 8-11 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wippermann (US 3474578) in view of Applicant's Admitted Prior Art Figure 7C (AAPA). Regarding claims 8-9, 11, 20 and 22-23, it is described above what is disclosed by Wippermann; however Wippermann does not distinctly illustrate a rib plate on the second edge of the gusset plate. AAPA Figure 7C illustrates a similar gusset / splice plate setup with a stiffening rib (14) on the top, second edge. It would have been obvious to one having ordinary skill in the art at the time of invention to include a second rib (as illustrates in AAPA Figure 7c) on the top of the gusset plate similar to item 35 of

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Wippermann to further support and strengthen the connection between the gusset and splice plates.

Regarding claims 10 and 22, it is described above what is disclosed by Wippermann in view of AIPA Figure 7C; however the references do not distinctly disclose ribs of the side faces of the gusset plates (as claimed within the instant application, claims 9 and 21). The examiner notes that it would be obvious to place ribs on the side faces for further strength since it is well known in the art to do so (see patents 4347015 and 6591573 items 38). The examiner also notes that there is a lack of criticality to this feature within the application since it is claimed that the sides do not have ribs in claims 9 and 21.

Response to Arguments

Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK R. WENDELL whose telephone number is (571)270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Richard E. Chilcot, Jr./

Supervisory Patent Examiner, Art Unit 3635

/M. R. W./

Examiner, Art Unit 3635

June 4, 2009